**Individual Project due 24:00 7 October, 2012 (to be loaded onto your wiki).**

**Name:** Amir

Project - Thin client network for a small school using Qimo OS

<http://www.qimo4kids.com/>

e.g. thin client http://www.ywterminal.com/en/product.asp?id=48



# What is Qimo?

Qimo is a [desktop](http://www.qimo4kids.com/what-is-qimo/) operating system designed for kids. Based on the open source [Ubuntu Linux](http://www.ubuntu.com/" \t "_blank) desktop, Qimo comes pre-installed with educational games for children aged 3 and up.  
Qimo’s interface has been designed to be intuitive and easy to use, providing large icons for all installed games, so that even the youngest users have no trouble selecting the activity they want.

Instruction

• Gather information to prepare the installation of an Qimo OS on device on a Thin Client system

• Prepare for the installation of the device

• Configure and test the device

• Complete and document installation and test results

• Evaluate opportunities to integrate sustainable ICT projects and reduce energy consumption

**Theory**

Complete the following notes:

* **Identify power consumption of a computer system under different operating conditions using the Current Cost Energy Monitor and appropriate power lead or similar energy meter.**
* **Recommendations on upgrading computer system.**

1. Q: Does the Current Cost EnviR Energy Monitor comply with Electrical Safety Standards?

ANSWER: Yes, It does.

1. Advise how you prepared the installation of Current Cost EnviR Energy Monitor

ANSWER:

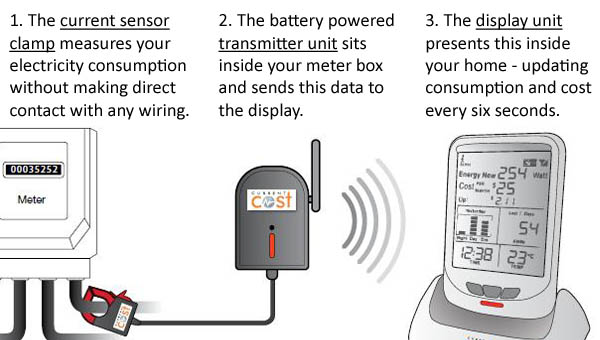
A , Use the power supply fire wire pass through the sensor clamp

B, Plug in the sensor power supply and power on

C, Plug in the display unit power supply and power on.

1. Advise how you configured and tested the Current Cost EnviR Energy Monitor

ANSWER:

* Use the power supply fire wire pass through the sensor clamp
* Plug in the sensor power supply and power on
* Plug in the display unit power supply and power on.
* Connect the transmitter unit to computer and download the data.
* Analysis the data to generate the report.

1. Advise how you could document the installation and energy audit

(see <http://my.currentcost.com/>)

ANSWER: Record the electrical power consumption while doing the test conditions as below.

* PC
* Server
* Web Client
* Thin Client



|  |  |  |  |
| --- | --- | --- | --- |
| **Condition** | **Power consumption**  **(watts)** | | |
|  | ThinClient  Y100 | WebClient | Server Blackbox | |
| **OFF** | 0.3 | 0.27 | 19 | |
| **MAX BOOT** | 3.5 | 5.1 | 42 | |
| **IDLE** | 3.2 | 3.4 | 42 | |
| **Word processing** | 3.3 | 5.1 | 44 | |
| **Spreadsheets** | 3.3 | 5.1 | 44 | |
| **Web browsing**  <http://news.bbc.co.uk/2/hi/programmes/click_online/default.stm> | N/A | 4.6 | N/A | |
| **Low level music**  <http://grooveshark.com/#/s/Fall+At+Your+Feet/3KIZB0?src=5> | N/A | 6.7 | N/A | |
| **Low level video**  <http://www.joost.com/39w1yk49/#/?video_info=33p1yw1t> | N/A | 5.2 | N/A | |

**Lower Total Cost of Ownership**

Increased security, reliability, easy management, and longer useful lifespan—all thin client business benefits that combine to deliver a lower cost of ownership. In fact, a Gartner study measured thin client TCO annual savings as high as:

* + 79% downtime cost-per-user
  + 16% capital cost-savings
  + 34% less in maintenance
  + 19% less to operate
  + 70% overall lower TCO

To make a [comprehensive](https://www.igel.com/) cost comparison between PC-based and thin client environments, all expenses associated with the investment in and operation of these respective infrastructures must be taken into account. This overall, bottom-line amount is the total cost of ownership (TCO). A correspondingly detailed economic analysis was recently conducted by the Fraunhofer Institute for Environmental, Safety and Energy Technology (UMSICHT) located in Oberhausen, Germany. **This study reveals that, compared directly to a manually managed PC, a thin client yields a savings of up to 70%.**

Smart Zero Client Technology

HP Smart Zero Technology gives you a simple, reprogrammable and affordable solution. It supports multiple protocols and can be reprogrammed on the fly, delivering a no-compromise, intelligent zero client experience for remote and cloud computing environments. HP Smart Zero Clients allow end users to be up and running in seconds with no configuration or management required on the device side. Just set up your server, boot the client and connect. HP Smart Zero Technology combines the benefits of a zero client with HP auto-sensing technology that automatically connects to the network and searches for the right Citrix, VMware or Microsoft client virtualization infrastructure and downloads everything it needs to deliver a robust user experience. The user is up and running quickly with no local user interface and just three

**Virtualization, such as VMware Citrix, hyper-v**

**Thin client, web client, Pad**

**Smart UPS**

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# [20 Reasons We Believe in Energy Efficiency](http://energyefficientbehavior.com/?p=1538)

Saving energy is the right thing to do.

For your bottom line.  
For the Earth.  
For future generations.  
For us.  Right here, right now.  
For consumer – and customer – responsibility.  
For the economy.  
To create jobs.  
To reduce emissions.  
To reduce greenhouse gasses.  
To conserve resources.  
To be patriotic.  
To be responsible.  
To improve your company’s competitive edge.  
To be in control.  
To reduce pollution.  
To show you care.  
Because it feels good.  
Because it sets a good example.  
Because it’s smart.  
Because there are no reasons not to.

**Q: How do you pronounce Qimo?**

A: The proper way to pronounce Qimo is “kim-oh”, as in “eskimo”. It does not make use of the typical English pronunciation of “QU” as “qwah”.

**Q: Why an Eskimo?**

A: Our son is Quinn, and it’s a referenced to a song written by Bob Dylan and made popular by Manfred Mann in the mid-1960′s.  Wikipedia notes that the

‘subject of the song is the arrival of the mighty Quinn (an eskimo)… who changes despair into joy and chaos into rest, and attracts attention from the animals.” We’ve sung the song to our son since the day he was born, and because the distribution was inspired by him, it seemed only fitting.

**Q: I heard that the name Eskimo is offensive…**

A: Many people have heard somewhere that the name Eskimo is offensive, and that the name Inuit should be used instead.  According to [Wikipedia](http://en.wikipedia.org/wiki/Eskimo), this stems from the incorrect belief that the [word](http://www.qimo4kids.com/faq/) Eskimo means “eaters of raw meat”.  Today, most scholars believe it means ‘snowshoe-netter”.  While Inuit is indeed the preferred term for Canadian natives, who are mostly Inuit, the name Eskimo is still the most commonly accepted term for Alaskan natives, who are largely Yupic.

**Q: What are the hardware requirements for Qimo?**

A: Qimo needs a minimum of 256MB of memory to run from the CD, or 192MB to [install](http://www.qimo4kids.com/faq/). At least 6 GB of hard drive space is recommended, and a 400MHz or faster CPU.

**Q: Why doesn’t Qimo include Flash support?**

A: Unfortunately Adobe’s licensing terms for Flash don’t allow us to distribute it as a part of Qimo. You will need to install it yourself after you have installed Qimo. Fortunately, this is easy enough to do, simply search for “Flash Plugin” in the Add/Remove dialog, [check](http://www.qimo4kids.com/faq/) the box next to “Macromedia Flash Plugin”, then press the “Apply Changes” button.

**Q: How is Qimo different than [Edubuntu](http://edubuntu.org/" \o "Edubuntu" \t "_blank)?**

A: Qimo was designed to be a standalone home computer for kids, rather than a networked classroom computer. The interface for Qimo is designed to be easy enough for a 3 year old to use, without having to navigate menus or manage multiple open [windows](http://www.qimo4kids.com/faq/). Also, Qimo will also run from a LiveCD, and doesn’t require an existing Ubuntu installation the way Edubuntu does.

**Q: Why not use**[**Sugar**](http://sugarlabs.org/go/Main_Page)**from the**[**OLPC project**](http://laptop.org/)**?**

A: Sugar is a very good interface for the OLPC computers it was made for, but many of the design decisions and interfaces don’t work nearly as well on standard PCs. Qimo uses a customized XFCE interface to provide a fast, lightweight, and most importantly an easy to navigate interface that works well with standard computers, monitors and keyboards.



How Do We Measure Up

European countries have been ahead of North American countries in energy conservation because of the high costs associated with energy in their countries. If we adopt some of their practices we will be ahead of what will eventually make its way to our doorsteps. One method of controlling energy demand during peak hours in the day is to use smart meters to measure electrical use and charge at different rates during the course of an entire day. Peak hours equal higher costs, off peak hours equal lower costs, fairly straightforward. We may not think too much about that today but we will need to in the near future.

The province of Ontario, Canada is in the process of installing these smart meters and will adopt the variable rates once installation of all meters is complete. As part of the stimulus package the US allocated $4.5 billion to developing technologies for the "Smart Grid." "Several million networked meters have already been distributed in the United States."

Put quite simply less strain means less maintenance which translates to lower upkeep costs which in turn saves the end consumer money. It also limits the need to build more generating capacity and the need to bring on less efficient capacity during peak hours, this also saves the consumer money and reduces harmful emissions. The premise is to charge more when it costs more so the consumer is forced to be more efficient, more conscious about how they use their energy. We can stay ahead of this trend by making small changes now which will benefit us immediately as well as in the future.

## Solar Energy Panels for Commercial & Residential Use

The a solar panels are both helpful for the residential users and commercial users. One of the best uses of solar residential energy is it is renewable. You do not need to worry about running out of sunlight as it does not end up at any time. So you can use it whenever or wherever you want it to be. The sun is a consistent power and produce constant energy that is cheaper and can lessen your monthly electricity bills to almost half.

It is also beneficial for the remote areas where people are not able to receive electricity and are using the kerosene lamps that are very dangerous for the health of the people. The**California solar panel** is a better choice for all people no matter they belong to which state or city. You can have access to number of organization in San Diego that can provide you set up for your residential and commercial use of solar power.

